
SECTION 05521- SAFETY RAILING SYSTEM

PART 1 - GENERAL

1.1 SUMMARY

This Section includes:

- A. Portable guard rail system.

1.2 RELATED SECTIONS:

- A. 07543 THERMOPLASTIC POLY OLEFIN(TPO) ROOFING
- B. 16452 GROUNDING AND BONDING
- C. 16670 LIGHTNING PROTECTION

1.3 REFERENCES:

- A. Occupational Safety & Health Administration (OSHA): 29 CFR 1910.27 - Fixed Ladders
- B. Occupational Safety & Health Administration (OSHA): 29 CFR 1926.501 - Duty to Have Fall Protection.
- C. Occupational Safety & Health Administration (OSHA): 29 CFR 1926.502 - Fall Protection Systems Criteria and Practices.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300 -Submittals.
- B. Product Data: Manufacturers on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
- C. Shop Drawings: Drawings showing plans, elevations, sections and details of components and specialty components verified by on site inspection and measurements.
- D. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to the job site in good condition and adequately protected against damage as handrails are a finished product
- B. Inspect rail sections for damage before signing the receipt from the trucking company. Truck driver must note damaged goods on the bill of lading if damaged product is found
- C. Store products in manufacturer's unopened packaging until ready for installation.

1.6 PROJECT CONDITIONS

- A. Field Measurements: Where handrails and railings are indicated to fit to other construction, check actual dimensions of other construction by accurate field measurements before installation.

1.7 WARRANTY

- A. Warranty: Provide manufacture's two (2) year warranty.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Known Acceptable Manufacturers.
 - 1. BlueWater Mfg, Inc, 4064 Peavey Rd; Chaska, MN 55318
 - 2. DBI-Sala
 - 3. Garlock Equipment Co., 2601 Niagara Ln., Plymouth MN 55447

2.2 SYSTEMS

- A. Roof Edge Protection: Provide freestanding pedestrian egress barrier system on roof, including pipe railings, uprights, bases, and fittings Receiver Posts: Shall have a positive locking system into slots that allow rails to be mounted in any direction.
 - 1. Standards: System shall have top and mid rail in accordance with OSHA Standards - 29 CFR 1910.23 (a)(2).

2. Structural Load: 200 lb, minimum, in any direction to all components in accordance with OSHA Regulation 29 CFR 1926.502.

3. Height: 42 inches, minimum.

4. Railings: 1-5/8 inch O.D. hot rolled pickled electric weld tubing, free of sharp edges and snag points.

5. Mounting Bases: Class 30 gray iron material cast with a minimum of 2 receiver posts. Provide TPO Manufacturer approved protection pads on bottom of bases.

6. Receiver Posts: Shall have a positive locking system into slots that allow rails to be mounted in any direction. Friction locking systems are not allowed. Receiver posts shall have drain holes.

7. Gate- As recommended by Manufacturer.

2.3 FINISHES

A. Finish: Factory finished powder coat paint.

B. Color: COR will Approve color selection.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Do not begin installation until the roof system has been completed on the section of roof where the safety railings are being installed

3.2 PREPARATION

A. Prepare TPO roofing using the methods recommended by the manufacturer for achieving the best result to install protection pads under the project conditions.

3.3 INSTALLATION

A. Install according to manufacturers instructions

B. Bond the railing system to the lightning protection course conductor a minimum of once every 10 LF of railing installed.

3.4 PROTECTION

- A. Protect installed products until completion of the project
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION 05521